



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,800	03/10/2004	Shigeru Terashima	1232-5339	7113
27123	7590	10/13/2005		
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			EXAMINER FULLER, RODNEY EVAN	
			ART UNIT 2851	PAPER NUMBER

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,800

Applicant(s)

TERASHIMA, SHIGERU 

Examiner

Rodney E. Fuller

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

RODNEY FULLER
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/12/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 7A and 7B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
- a. (Page 8, Line 15): The word "reticle101" should have a space added between "reticle" and "101".
 - b. (Page 22, Line 11): The word "err" appears to be a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2851

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Moriyama, et al. (US 4,798,470).

Regarding claim 1, Moriyama discloses "an optical system for guiding light from a light source (Fig. 8, ref.# 113) to an object (Fig. 2, ref.# 1); holding member (Fig. 2, ref.# 6) holding the object; and measuring device (Fig. 2, ref.# 8) for measuring position of the holding member by using a reference surface (Fig. 2, ref.# 7a, 7b) provided in the holding member, wherein the reference surface located in an area corresponding to the object (Fig. 2, ref.# 1) which held by the holding member (Fig. 1, ref.# 6)."

Regarding claim 2, Moriyama discloses "wherein the reference surface is located substantially at a position corresponding the center of the object which is held by the holding member." (Fig. 2, ref.# 7a, 7b; Fig. 5, ref.# 12)

Regarding claim 3, Moriyama discloses "wherein the position substantially corresponding to the center of the object fixed to a position substantially corresponding the center of the holding member." (Fig. 2, ref.# 7a, 7b; Fig. 5, ref.# 12)

Regarding claim 5, Moriyama discloses "wherein the object is a wafer." (column 2, line 66)

The method steps of claims 9 and 10 are met by the operation of the apparatus as set forth in claim 1.

Art Unit: 2851

5. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kakizaki, et al. (US 6,040,096).

Regarding claim 1, Kakizaki discloses "an optical system for guiding light from a light source (Fig. 1, ref.# IL) to an object (Fig. 1, ref.# R, W); holding member (Fig. 1, ref.# RST, WST) holding the object; and measuring device (column 4, lines 6-10) for measuring position of the holding member by using a reference surface provided in the holding member, wherein the reference surface (Fig. 2, ref.# M1, M2; Fig. 4, ref.# SX, SY, S θ ; Fig. 8, ref.# SS, ST) located in an area corresponding to the object which held by the holding member."

Regarding claim 2, Kakizaki discloses "wherein the reference surface is located substantially at a position corresponding the center (Fig. 8, center shown at ref.# BMt line) of the object which is held by the holding member." (Fig. 8, ref.# SS, ST)

Regarding claim 3, Kakizaki discloses "wherein the position substantially corresponding to the center of the object fixed to a position substantially corresponding the center of the holding member." (Fig. 8, ref.# SS, ST) (Fig. 8, center shown at ref.# BMt line)

Regarding claim 4, Kakizaki discloses "wherein the object is a reticle." (Fig. 8, ref.# R)

Regarding claim 5, Kakizaki discloses "wherein the object is a wafer." (Fig. 1, ref.# W)

Regarding claim 7, Kakizaki discloses wherein the exposure apparatus "exposes the object by scanning the object." (column 1, line 43)

Regarding claim 8, Kakizaki discloses "wherein t/e light source is an EUV light source." (column 2, line 22)

The method steps of claims 9 and 10 are met by the operation of the apparatus as set forth in claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kakizaki, et al. (US 6,040,096) in view of Hirayanagi (US 2002/0145714).

Kakizaki discloses all the structure set forth in the claims except kakizaki holds the object by applying a vacuum (column 6, line 59). However, Hirayanagi teaches that electrostatic or vacuum suction are equivalents for holding an object such as a reticle (see abstract). It would have been obvious for one of ordinary skill in the art to substitute one equivalent for another to provide the inherent benefits of one particular equivalent (i.e., the electrostatic suction).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Iwamoto, et al. (US 2002/0008877) discloses "an optical system for guiding light from a light source to an object; holding member holding the object; and

Art Unit: 2851

measuring device for measuring position of the holding member by using a reference surface provided in the holding member, wherein the reference surface located in an area corresponding to the object which held by the holding member.”

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney E. Fuller whose telephone number is 571-272-2118. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rodney E Fuller
Primary Examiner
Art Unit 2851



October 4, 2005